



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

25

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,183	12/04/2003	Richard W. Kauppila	KAU-109	7306
7590	10/06/2005		EXAMINER	
John R. Benefiel Suite 100 B 280 Daines Street Birmingham, MI 48009			GREENHUT, CHARLES N	
			ART UNIT	PAPER NUMBER
			3652	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<i>He</i> <b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/728,183	KAUPPILA ET AL.	
	Examiner Charles N. Greenhut	Art Unit 3652	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
<b>Period for Reply</b>			
<b>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.</b>			
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> </ul> <p>Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</p>			
<b>Status</b>			
1) <input type="checkbox"/> Responsive to communication(s) filed on _____. 2a) <input type="checkbox"/> This action is FINAL.                  2b) <input checked="" type="checkbox"/> This action is non-final. 3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
<b>Disposition of Claims</b>			
4) <input checked="" type="checkbox"/> Claim(s) <u>1-19</u> is/are pending in the application. 4a) Of the above claim(s) _____ is/are withdrawn from consideration. 5) <input type="checkbox"/> Claim(s) _____ is/are allowed. 6) <input checked="" type="checkbox"/> Claim(s) <u>1-19</u> is/are rejected. 7) <input type="checkbox"/> Claim(s) _____ is/are objected to. 8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.			
<b>Application Papers</b>			
9) <input type="checkbox"/> The specification is objected to by the Examiner. 10) <input type="checkbox"/> The drawing(s) filed on _____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) <input type="checkbox"/> The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.			
<b>Priority under 35 U.S.C. § 119</b>			
12) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All    b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.			
<b>Attachment(s)</b>			
1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.		4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.	

**I. Drawings**

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the figures contain illegible reference numerals. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**II. Claim Objections**

Art Unit: 3652

1. With respect to claim 1, "said edge" on page 9, line 19 should read, "said overhung edge" since multiple edges were set forth previously in the claim.
2. The "speed up belt" should be referred to as the, "speed-up belt" throughout the claims.
3. With respect to claim 12 "a said turnover station." on page 12, line 18 should read, "at said turnover station."

### **III. Claim Rejections - 35 USC § 112**

The following is a quotation from the relevant paragraphs of 35 U.S.C. 112:

(2) The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - 1.1. With respect to claim 1, is unclear what "the same" on page 9 line 9, "and "thereon" on page 9, line 10 refer to.
  - 1.2. With respect to claim 4, it is unclear what "thereto" refers to on page 10, line 11.
  - 1.3. With respect to claim 10, it is not clear what is meant by the term "for initial raise" on page 11, line 16.
  - 1.4. Claim 10 recites the limitation, "each turnover element" on page 11 line 17. There is insufficient antecedent basis for this limitation in the claim.
  - 1.5. With respect to claim 11, it is not clear what "thereof" refers to on page 12, lines 10 & 11.
  - 1.6. Claim 12 recites the limitation, "said flipper arm motion" on page 12 line 15. There is insufficient antecedent basis for this limitation in the claim.

- 1.7. With respect to claim 13, it is unclear what “thereto” refers to on page 12, line 22.
- 1.8. With respect to claim 14, it is unclear what “thereof” refers to on page 13, line 5.
- 1.9. With respect to claim 16, it is unclear what “the same” refers to on page 13, line 20.
- 1.10. With respect to claim 16, it is unclear what “thereof” refers to on page 13, lines 17 and 20
- 1.11. With respect to claim 19, it is unclear what “on one said of said conveyor chain” refers to on page 14, line 11.
- 1.12. With respect to claim 19, it is unclear what “thereof” refers to on page 14, line 15.

#### **IV. Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim(s) 1, 2, 4-7, 9-13, and 16-19 is/are rejected under 35 U.S.C. 102(b) as being anticipated by GUNNARSSON (US 6,216,846).

1.1. With respect to claim 1, GUNNARSSON discloses spaced apart lugs having an overhung edge (4) attached along conveyor loops (1), a speed up belt (11), a series of flipper arms (16a-c) pivotally mounted about a conveyor (15) adjacent a respective lug, a cam ramp (23) causing the flipper arms to pivot into engagement position, the speed-up belt driving the article past the overhung edge to cause tipping. Since the flipper arms in GUNNARSSON are disposed to move synchronously with the

conveyer to engage the articles carried by the conveyor, it is inherent that they are mounted to the conveyor.

- 1.2. With respect to claim 2, GUNNARSSON additionally discloses lugs having a trailing upper edge located on the rear of a bottom part of a lug, a speed up belt driving the article to engage the trailing edge, the article driven past the trailing edge to cause tipping.
- 1.3. With respect to claim 4, GUNNARSSON additionally discloses two conveyor loops.
- 1.4. With respect to claim 5, GUNNARSSON additionally discloses two speed-up belts.
- 1.5. With respect to claim 6, GUNNARSSON additionally discloses the flipper arm having a first and second segment extending at an angle to each other, a free end of one downwardly extending segment pivotally mounted on a conveyor loop chain link pin.
- 1.6. With respect to claim 7, GUNNARSSON additionally discloses a knee engaging a cam to pivot the flipper arm (Col. 4).
- 1.7. With respect to claim 9, GUNNARSSON additionally discloses the cam ramp adjustably mounted.
- 1.8. With respect to claim 10, GUNNARSSON additionally discloses let-down elements pivotally mounted on the conveyor loop located adjacent a flipper arm (second leg of 16c), a second cam (22) for lowering the let-down element and a turnover element engaging the rear of an article on edge.
- 1.9. With respect to claim 11, GUNNARSSON discloses lugs projecting above the conveyor, each article between the lugs, pivotally mounting a flipper are below each

lug, driving each article into abutment with a next ahead lug, and a cam ramp to cause upward movement of the flipper.

1.10. With respect to claim 12, GUNNARSSON additionally discloses a trailing upper edge on each lug spaced above the article, raising the article to an edge position with the flipper and advancing the on-edge article against the lug trailing edge by the speed-up belt to tip the article.

1.11. With respect to claim 13, GUNNARSSON additionally discloses two conveyor loops having lugs, and a pair of drive belts interposed between the conveyor loops.

1.12. With respect to claim 16, GUNNARSSON discloses lugs mounted to the chain loop, flipper elements pivotally mounted to the chain loop, and a cam surface.

1.13. With respect to claim 17, GUNNARSSON additionally discloses a speed up drive.

1.14. With respect to claim 18, GUNNARSSON additionally discloses lugs having a trailing overhung edge and the speed-up drive driving the bottom of the article into engagement with the overhung edge to cause tipping.

1.15. With respect to claim 19, GUNNARSSON additionally discloses a let down element pivotally mounted on the conveyor adjacent a flipper, a cam segment pivoting the let down element to engage the article, and a cam segment engaging the article to allow a controlled descent.

## **V. Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole

Art Unit: 3652

would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim(s) 3 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNNARSSON (US 6,216,846) in view of MOORE (US 5,482,140).

1.1. With respect to claim 3, GUNNARSSON fails to teach a rear facing curved shape creating a trailing edge to guide raising the article. MOORE teaches a rear facing curved shape creating a trailing edge to guide raising the article. It would have been obvious to one of ordinary skill in the art to modify GUNNARSSON with the curved surface of MOORE in order to enable the lug to better follow the path of the board as it rotates.

2. Claim(s) 8 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNNARSSON in view of KUMAGAMI (US 4,822,967).

2.1. With respect to claim 8, GUNNARSSON fails to teach an arcuate guide slot formed in the flipper and a guide pin extending from the chain link into the guide slot. KUMAGAMI teaches an arcuate guide slot formed in the flipper and a guide pin extending from the chain link into the guide slot. It would have been obvious to one of ordinary skill in the art to modify GUNNARSSON with the pin and guide slot of KUMAGAMI in order to synchronize the conveyor conveying the articles with the flippers.

3. Claim(s) 14-15 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNNARSSON in view of RAYBON (US 5,605,216).

3.1. With respect to claim 14, GUNNARSSON additionally teaches engaging an upper rear portion of each article as it is tipping. GUNNARSSON fails to teach controllably

restraining lowering the article to slow the rate of dropping motion. RAYBON teaches controllably restraining lowering the article to slow the rate of dropping motion. It would have been obvious to one of ordinary skill in the art to modify GUNNARSSON with the restraining mechanism of RAYBON in order to prevent damage to the article.

3.2. With respect to claim 15, GUNNARSSON additionally teaches the let down element pivotally mounted to the conveyor loop and located adjacent a flipper arm. GUNNARSSON fails to teach the second cam ramp used to control descent of the article. RAYBON teaches a cam ramp used to control descent of the article. It would have been obvious to one of ordinary skill in the art to modify GUNNARSSON with the cam ramp of RAYBON in order to control descent of the article, thereby preventing damage to the article.

#### **VI. Conclusion**

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Greenhut whose telephone number is (571) 272-1517. The examiner can normally be reached on 7:30am - 4:00pm EST.
3. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CG



EILEEN D. LILLIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600